Modified Biotechnology/Biomolecular Chemistry Curriculum

Biotechnology/Biomolecular Chemistry Course Sequence

Level One : First Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTC 111	General Chemistry I		1 (1X3)	3	4	6
BTBio 111	Cell Biology	(Corequisite BTC 111)	1 (1X3)	3	4	6
BTM 111	Differential Calculus		1 Tutorial	3	3	4
BTPhy 111	Physics I		1 (1X3)	3	4	6
BTU 101	Computer Science (University. Requirement)		1 (1X2)	1	2	3
BTU 102	English language (University. Requirement)		-	2	2	2
					19	27

Level One : Second Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTC 122	General Chemistry II		1 (1X3)	3	4	6
BTBio 122	Biodiversity		1 (1X3)	3	4	6
BTM 122	Integral Calculus	BTM 111	1 Tutorial	3	3	4
BTPhy 122	Physics II		1 (1X3)	3	4	6
BTU 103	Human Rights (University Requirement)		-	2	2	2
BTU 104, BTU 105, BTU 108, BTU 109	Elective Course Social Science (University Requirement)		-	2	2	2
					19	26

Level Two : Third Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTBio 211	Genetics	BTBio 111	1 (1X3)	3	4	6
BTC 211	Organic Chemistry I	BTC 122	1 (1X3)	3	4	6
BTM 211	Biostatistics		1 tutorial	3	3	4
BTC 212	Physical Chemistry I	BTC 122/ BTM 122	1 (1X3)	3	4	6
BTC 213	Inorganic Chemistry I	BTC 122	1(1X3) tutorial	3	4	6
					19	28

Level Two : Fourth Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTBio 222	Molecular Biology	BTBio 211	2 (2X3)	3	5	9
BTC 224	Organic Chemistry II	BTC 211	-	2	2	2
BTC 225	Physical Chemistry II	BTC 212/ BTM 122	1 (1X3)	3	4	6
BTC 226	Inorganic Chemistry II	BTC 213	1 (1X3)	3	4	6
BTC 227	Chemistry of biomolecules	BTC 211	1 (1X3)	3	4	6
					19	29

Level Three : Fifth Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTC 311	Analytical Chemistry	BTC122	1 (1X3)	3	4	6
BTBiophy 311	Biophysics		1 (1X3)	2	3	5
BT 311	Biotechnology Laboratory	BTBio222	2 (2X3)	-	2	6
BTC 312	Proteins, Nucleic Acids Chemistry and Enzymes	BTC227	-	2	2	2
BTBio 311	Microbiology	BTBio122	1 (1X3)	2	3	5
BTBio 312	Animal Physiology	BTBio111	1 (1X3)	3	4	6
					18	30

Level Three : Sixth Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BT 322	Biotechnology Laboratory	BTBio 312	2 (2X3)	-	2	6
BTC 323	Instrumental Analysis	BTC 311	1 (1X3)	3	4	6
BTC 324	Metabolism	BTC 227	-	3	3	3
BTBio 323	Microbial Biotechnology	BTBio 311	2 (2X3)	2	4	8
BTBio 324	Immunology	BTBio 111	1 (1X3)	2	3	5
BTBio 325	Developmental Biology	BTBio 122	1 (1X3)	2	3	5
					19	33

Level Four : Seventh Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BTC 411	Enzymology and Biotechnology	BTC 312	-	2	2	2
BTBio 411	Genomics / Proteomics/ Bioinformatics	BTC 312	1×1	2	2	3
BT 411[(1)]	Research		4 (4X3)	1	5	13
BTBio 412	Plant Biotechnology	BTBio 111	1 (1X3)	2	3	5
BTBio 413	Infectious & parasitic diseases	BTBio 122	1(1 X3)	2	3	5
BT 412	Elective Course -Evolutionary Genetics - Animal, Plant and Environmental Toxicity		-	2	2	2
					17	30

Level Four : Eighth Semester						
Subject Code	Subject	Prerequisite	Practical	Lecture	Total	
					cr	contact
BT 411[(2)]	Research		4 (4X3)	1	5	13
BT 423	Molecular markers: principles and applications	BTC 227	-	2	2	2
BT 424	Biosafety and Ethics		-	2	2	2
BT 425	Biotechnological Products Design	BTC 227		2	2	2
BTBio 425	Environmental Biotechnology		1 (1X3)	2	3	5
BT 426	Elective Course -Stem Cells -Cancer Biology		-	2	2	2
					16	26